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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,286	07/29/2003	Sadato Akahori	Q76703	5383

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EXAMINER	
LIEW, ALEX KOK SOON	
ART UNIT	**PAPER NUMBER**
2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/628,286	AKAHORI, SADATO	
	Examiner	Art Unit	
	Alex Liew	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-6* is/are rejected.

7)☒ Claim(s) *2 and 7-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 2 and 7 – 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regards to claim 2, the examiner cannot find any applicable prior and / or any suggestions disclosing calculating a type reliability value representing *likelihood* of each of the object regions being of the recognized type in combination with the rest of the limitations of claim 2 and all of claim 1.

With regards to claim 7, see rationale for claim 2.

Tabata (US pat no 6,879,417) discloses an image processing method according to claim 1, further comprising the steps of calculating a type value representing likelihood of each of the object regions being of the recognized type, setting an image processing condition for each of the object regions by using the type value and carrying out image processing on each of the object regions by using the image processing condition (see col. 2 lines 51 – 55 – the type of image represents an image type value, based on the type of image the system will perform image processing based on the recognized image), but does not disclose calculating a type reliability value representing likelihood of each of the object region.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holter (US pat no 4,731,859) in view of Ohmae (US pat no 6,188,787).

With regards to claim 1, Holter discloses an image processing method comprising the steps of generating object regions by dividing an image into objects and generating a plurality of block region each having a predetermined number of pixels and having smaller area than any one of the object regions by dividing the image (see fig 1 – area 100 is being image to be recognized, fig 6 are images of color blocks generated by the systems 101' being the smallest block in the image, the blocks has a predetermined number of pixels based on the size of each block) and recognizing the types of the respective blocks regions (see col. 2 lines 34 – 38), but fails to disclose totaling up occurrence and recognizing object region based on totaling.

Ohmae discloses totaling up occurrence frequency of each of the types of the respective block regions in each of the object region and recognizing the type of each of the object region based on a result of the totaling (see col. 2 lines 52 – 55).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include totaling up occurrence and recognizing object region based on totaling because some object occurs more frequent than others, for example imaging sections of a forest, what you will see more are trees, so to reduce system processing of the image of the forest when the system detects objects of the same occurring often, than the object is recognized to be the object that occurs the most, in the example it will the trees.

With regards to claim 3, see the rationale and rejection for claim 1.

With regards to claim 4, Holter discloses an image processing apparatus according to claim 3, wherein the block region recognition means comprises

block characteristic quantity extraction means for extracting block characteristic quantities from each of the block regions (see fig 5 – the blocks extracted contains a predetermined number of pixels based on the sized of the objects),

mapping means for mapping the block characteristic quantities into a two-dimensional space (see fig 6 – the image is in two dimension) and

type output means having a type distribution map defines the types at respective coordinates in the two-dimensional space, the type output means for outputting the types indicated by the type distribution map at coordinates of the block characteristic quantities mapped in the two-dimensional space as the types of the block regions (see fig 6 – each block extracted is its own color, red, green and blue).

With regards to claim 6, Holter discloses an image processing apparatus according to claim 3, wherein the block characteristic quantity extraction means extracts a color (see fig 6 – each block in the image has its own color component), a lightness component (see fig 6 – each pixel in image in fig 6 represents the intensity of the image at the position) and a structural component of each of the block regions as the block characteristic (see fig 6 – each block regions in fig 6 image are rectangles).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holter (US pat no 4,731,859) in view of Ohmae (US pat no 6,188,787) as applied to claim 3 further in view of Shiratani (US pat no 6,418,238).

Holter discloses all of the claim elements / features as discussed above in rejection for claim 3 and incorporated herein by reference, but fails to disclose self-organizing map. Shiratani discloses a two-dimensional space is a self-organizing map wherein neurons having a learning ability are laid out in the form of a matrix (see col. 10 lines 33 – 36). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include self-organizing map to learn because to adapt to multiple different kind of image data to, so the system does not require a manual image processing change on the image, where it can be done by the learning system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Liew
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1/2/07

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER